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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,528	09/22/2003	Akira Tani	1737.31	9938

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 DENNIS G. LAPOINTE
 LAPOINTE LAW GROUP, PL
 PO BOX 1294
 TARPON SPRINGS, FL 34688-1294

EXAMINER

FERGUSON, MICHAEL P

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/667,528	Applicant(s) TANI, AKIRA	
	Examiner Michael P. Ferguson	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/07/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 1, 2 and 4-7 are objected to because of the following informalities:

Claim 1 (line 3) recites "for which a bolt". It should recite --in which a bolt--.

Claim 1 (line 4) recites "for which a nut". It should recite --in which a nut--.

Claim 1 (line 6) recites "said cylindrical portions". It should recite --cylindrical portions--.

Claim 1 (line 8) recites "the inner diameters". It should recite --inner diameters--.

Claim 2 (line 2) recites "for said columnar couplers". It should recite --in said columnar couplers--.

Claim 4 (line 2) recites "to one of claim 1, wherein said inner diameters". It should recite --to claim 1, wherein outer diameters--.

Claim 4 (line 4) recites "said ends are chamfered". It should recite --said ends of said connection adaptor are chamfered--.

Claim 5 (line 2) recites "to one of claim 1, wherein said first columnar coupler wherein said bolt". It should recite --to claim 1, wherein said first columnar coupler in which said bolt--.

Claim 6 (line 2) recites "to one of claim 5". It should recite --to claim 5--.

Claim 7 (line 2) recites "to one of claim 5". It should recite --to claim 5--.

Claim 7 (line 4) recites "another strut". It should recite --a strut--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Batterman (US 2,356,199).

As to claim 1, Batterman discloses an easily connected and separated columnar coupler structure comprising:

a first columnar coupler **14**, in which a bolt **16** is secured to a cylindrical joint end;

a second columnar coupler **2**, in which a nut having a size that will fit over a male thread of the bolt is secured to a cylindrical joint end; and

a connection adaptor **5**, shaped and sized so that both ends can engage cylindrical portions of the columnar couplers, in which a bolt through hole is formed into which the bolt is inserted, and on which an annular projection **6** having a greater diameter than inner diameters of the columnar couplers is provided at an intermediate portion,

wherein the columnar couplers are interconnected with the connection adaptor positioned in between (Figure 4).

As to claim 2, Batterman discloses a structure wherein, in the columnar couplers **14,2**, hollow cylindrical portions are formed in the vicinities of joint ends so as to be closely fitted over ends of the connection adaptor **5** (Figure 4).

As to claim 3, Batterman discloses a structure wherein one of the cylindrical portions of the joint ends has a circular cross section (Figure 3).

As to claim 4, Batterman discloses a structure wherein outer diameters at the ends of the connection adaptor **5** are formed and sized so that the ends can be fitted inside the ends of the columnar couplers **14,2**; and wherein both of the ends of the connection adaptor are chamfered (chamfered end **13** fitted in coupler **14**; and chamfered threaded end **4** fitted in coupler **2**) so that an assembly process can be easily performed (Figure 4).

As to claim 5, Batterman discloses a structure wherein the first columnar coupler **14** in which the bolt **16** is secured and the second columnar coupler **2** in which the nut is secured are fitted inside ends of hollow columnar members **1A** having appropriate lengths and shapes; and wherein the columnar couplers are connected by using the connection adaptor, so that coupling for an arbitrary number of the hollow columnar members is enabled (Figure 4).

As to claim 7, Batterman discloses a structure wherein the hollow columnar members **1A** are a measurement (transmitter) pole or a strut (radio transmitter).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Batterman.

As to claim 6, Batterman fails to disclose a structure wherein a material used for the connection adaptor is aluminum, reinforced plastic or foundry die casting.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a structure as disclosed by Batterman to have a connection adaptor made of aluminum, reinforced plastic or foundry die casting as such practice is a design consideration within the skill of the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to coupler structures:

Drezner (US 2,868,602) and Kennedy (US 546,540) are cited for pertaining to structures comprising first and second columnar couplers and a connection adapter.

Skulkety (US 2,317,818), Wu (US 6,530,682) and Wu (US 6,692,180) are cited for pertaining to structures comprising first and second columnar couplers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MPF
06/15/05



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600